EVOPLOSOMA VIRGO, A NEW GONIASTERID STARFISH (ECHINODERMATA: ASTEROIDEA) FROM THE GULF OF MEXICO

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Abstract.—Evoplosoma virgo, new species, is described from deep water in the Gulf of Mexico. It is the second species of this rare genus known from the Atlantic.

Among the starfishes collected during a survey of the benthic fauna of the Gulf of Mexico by Dr. Willis E. Pequegnat, Texas A&M University, was a single specimen of an undescribed asteroid of the genus *Evoplosoma* (family Goniasteridae). The specimen was sent to the National Museum of Natural History only a few weeks after the description of another new species of this genus, *E. scorpio* Downey, 1981, was published. *Evoplosoma scorpio*, from Rockall Tough and off the mouth of the English Channel, was the first Atlantic representative of this genus; other species of the genus are from Hawaii and the Indian Ocean.

Evoplosoma virgo, new species Fig. 1

Holotype.—USNM E24285.

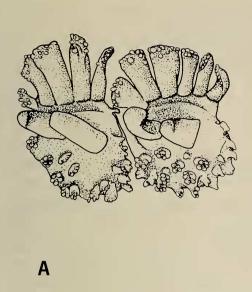
Type-locality.—Alaminos Station 71A8-8, 30 July 1971, northwestern Gulf of Mexico, 26°08′N, 92°43′W, 2056 m.

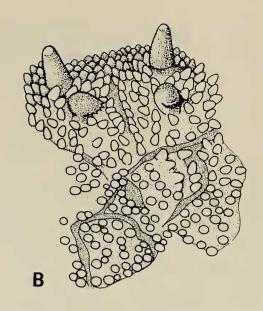
Description.—Disc large, inflated; arms 5, long, more or less square in crosssection, narrow; abactinal plates small, discoidal, covered with uniform ensacculate granules; papular pores between plates single, fairly large; pedicellariae scattered, short, rounded, barely distinguishable from granules; abactinal surface overhanging marginals interradially; marginal plates large but quite thin, square, conspicuous, equal, opposite, covered with granules like those of abactinal plates, many, particularly distally, bearing a short, stout, conical spine; actinal areas rather small, plates slightly larger than abactinal plates, with coarser granulation, many plates bearing a large, flattened felipedal pedicellaria; row of actinal plates adjacent to adambulacral series extending almost to end of arm; admbulacral plates with more or less straight furrow margin bearing 4–5 crowded, flat, truncate spines and, behind, a large, flattened felipedal pedicellaria aligned parallel to furrow, surrounded by bare space and ring of angular granules; mouth plates concealed by thick membrane (in holotype); madreporite small, covered with thick membrane, midway between disc center and margin. R = 115 mm, r = 33mm, R/r = 3.5/1; number of superomarginals = 26, R/SM = 4.4/1.

Color.—Reddish brown (dried).

Etymology.—The species is named for the constellation Virgo.

Discussion.—This species lacks the abactinal spines, spinelets, or tubercles present in other species of *Evoplosoma*. The demarcation between disc and arms is less abrupt than in *E. forcipiferum* Fisher, from Hawaii, and *E. scorpio* Down-





.75 mm.

Fig. 1. Evoplosoma virgo: A, Two adambulacral plates; B, Two superomarginal plates.

ey, but much more so than in *E. augusti* Koehler, from the Indian Ocean. The membrane covering the individual granules is apparently thicker than that of *E. scorpio*, more like the thick membrane of *E. forcipiferum*, but as the specimen was dried when received, it is difficult to be sure of this comparison. *Evoplosoma virgo* differs from *E. scorpio* in having quite flattened, compressed, truncate, adambulacral furrow spines, but they are not the peculiarly flattened, thin furrow spines with expanded tips present in *E. forcipiferum*. The tiny rounded abactinal pedicellariae and the large, rectangular, very flat actinal pedicellariae are unique to *E. virgo*.

Acknowledgments

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Literature Cited

Downey, M. E. 1981. A new goniasterid seastar, *Evoplosoma scorpio* (Echinodermata: Asteroidea), from the northeastern Atlantic.—Proceedings of the Biological Society of Washington 94:561–563.

Fisher, W. K. 1906. The starfishes of the Hawaiian Islands.—Bulletin of the U.S. Fish Commission for 1903, 23(3):987–1130, pls. 1–49.

Koehler, R. 1909. Astéries recueillies par l'Investigator dan l'Océan Indien. I. Les Astéries de Mer profonde. Calcutta: Indian Museum, Pp. 5–143, pls. I–XIII.

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